What is the Grand Trunk Wetland?

Historically, the area surrounding Milwaukee's Inner Harbor was a vast network of marshes and wetlands. Today, the thousands of acres of wetlands have long been filled. The 7.5-acre Grand Trunk Wetland is one of the last remnants of Milwaukee's historical wetlands. The property is owned by Port Milwaukee, and the restoration project is being managed by the City of Milwaukee.

Turtle at
Grand Trunk Site

Why is it important to restore the wetland?

As the Milwaukee Estuary continues to be restored, the Grand Trunk Wetland can serve an important role in providing coastal wetland habitat for aquatic organisms such as northern pike, for native plants, and also for birds and other wildlife. Additionally, past industrial uses of the site have left legacy contamination. This contamination needs to be addressed before habitat can be restored.

Northern
Pike

Great
Blue
Heron

The Grand Trunk Wetland can also serve as an important educational tool and urban green space for residents of nearby neighborhoods.

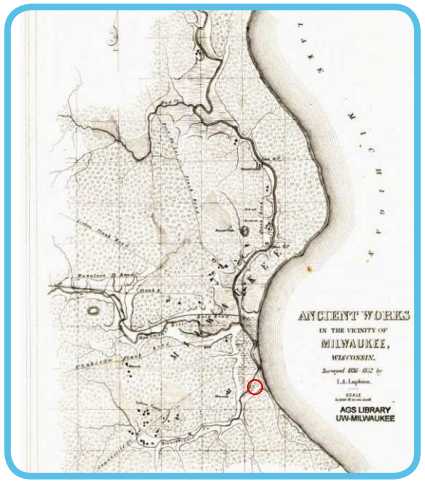
What have we heard so far?

Many stakeholders have shared that restoration of the wetland is important. Technical and community stakeholders have identified this project as a necessary action to address loss of fish and wildlife habitat in the Milwaukee Estuary through the Great Lakes Area of Concern program. Through remedial action planning, the wetland was identified as one the most important areas to restore fish and wildlife habitat in the harbor.

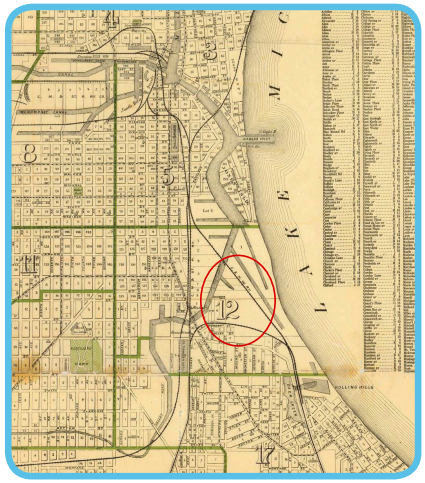
Harbor District, Inc. and the City of Milwaukee recently completed a 2-year planning process, culminating in the Harbor District Water and Land Use Plan (adopted by the City of Milwaukee in February 2018). During the planning process, we heard from the public that it is important to protect the habitat and ecology of the Grand Trunk Wetland. Public access to the wetland and restored habitat areas should therefore be limited to designated, protected paths and trails which allow visitors to explore the site without interfering with or damaging the sensitive ecosystems.

The Grand Trunk Wetland will be a unique asset for Milwaukee by showing that a thriving ecology, economy, and community can coexist in the heart of the City.

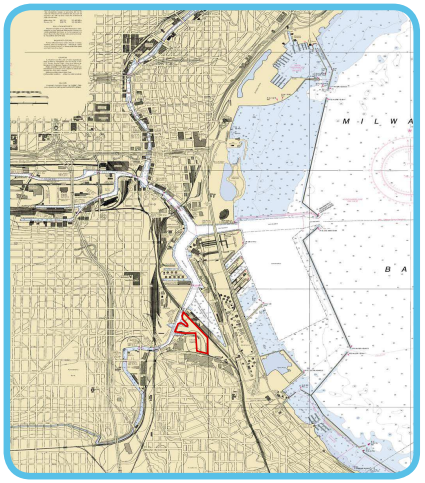
History of the Grand Trunk Site and Current Conditions



1852 Map of Milwaukee' natural features. Approximate location of Grand Trunk in red.



1888 map of Milwaukee. Approximate location of Grand Trunk in red. Map courtesy of American Geographic Society digital map collection.

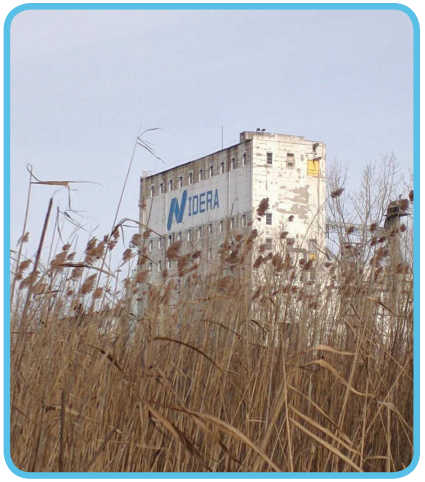


1984 map of Milwaukee Harbor. Location of Grand Trunk in red.

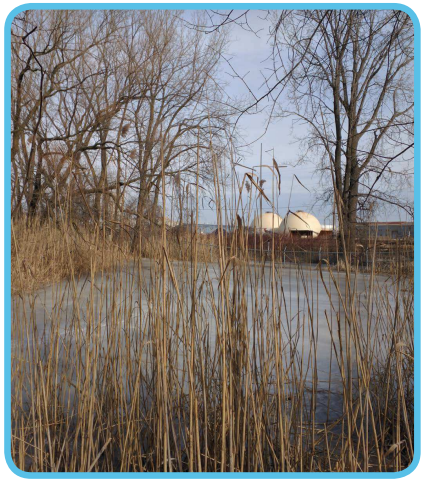
Waterway connection from the Kinnickinnic River into the Grand Trunk site. Photo by Eddee Daniel.

1930 photo of rail cars loading onto a ferry at the Municipal Car Ferry on Jones Island. Similar activity took place at the Grand Trunk site. Photo courtesy of Milwaukee Public Library.

1930 photo of Jones Island and Milwaukee Harbor looking north from Bay View. Grand Trunk site outlined in red. Photo courtesy of Milwaukee Public Library.



A view of the COFCO (formerly Nidera) grain elevators from the Grand Trunk site. The site is largely covered with invasive vegetation (such as the phragmites shown in the photo).



A frozen pond along the eastern edge of the Grand Trunk site. Port Milwaukee's Jones Island facilities are visible in the background.

Timeline of Grand Trunk Site Activity

pre-1800s
Native Americans in the area used the wetland to harvest rice, fish, and hunt game.

1850s
The "straight cut" is dug to create the entrance to the harbor mouth that is there today.

1880s
Wetland filled in and slip channels dug out. The slip channels are the same ones there today.

1905 - 1978
Grand Trunk Car Ferry in operation.

1983
City acquires Grand Trunk properties.

2000s
Environmental and geotechnical investigations

2008
City of Milwaukee adopts Southeast Side Plan

2011
2011 Remedial Action Plan for the Milwaukee Estuary Area of Concern (AOC) identifies the "restoration of the Grand Trunk Wetland as an important habitat project for the AOC." The project is later identified as a necessary project for delisting in 2015 Remedial Action Plan

2013
UWM School of Architecture and Urban Planning studio projects

2014
Bay View Wetland Master Plan developed by the City of Milwaukee with funding from the Wisconsin Coastal Management Program and Fund for Lake Michigan

2017
Gap analysis completed (site investigation, geotechnical reporting, and design feasibility) to gather existing information and identify next steps

2017 to Today
Wisconsin Dept. of Natural Resources (DNR) secured $250,000 for design and $3 million for construction through the US EPA Great Lakes Restoration Initiative for the City to implement wetland restoration. The development of a restoration plan and construction documents is CURRENTLY UNDERWAY.

2018
Restoration and remediation planning continues with the City of Milwaukee and DNR.

Fall 2018
Construction document complete.

2019
Remediation and restoration process begins.

2019 to 2023
Establishing wetland ecology and native plants; planning and implementing public access.

PAST USES | PRIOR RESTORATION PLANNING WORK | TODAY | NEXT STEPS

Goals for the Restoration

Provide habitat in the wetland for fish and aquatic organisms, restore the connection of the wetland to the Kinnickinnic River and estuary allowing fish to move between the wetland and the river.

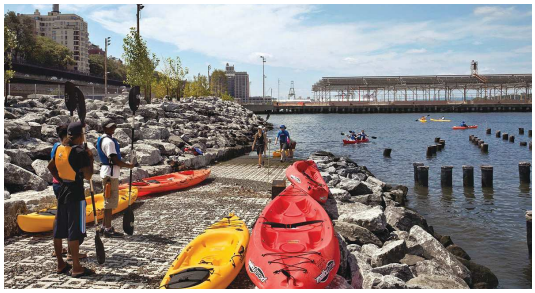
Remove invasive species and restore native plant communities.

Preserve and restore upland habitat (such as forest and prairie) around the wetland, and maximize the benefits for multiple animal and bird species.

Address legacy contamination and design stormwater management to prevent future contamination of the site and surrounding area.

Create public access which prioritizes the protection of habitat while allowing the public to explore and engage with the site.

Improve the overall environmental quality and economic viability of the Harbor District by expanding waterfront access and creating new opportunities for sustainable mixed-use development.



PRELIMINARY - FOR DISCUSSION PURPOSES ONLY. ALL WORK IS SUBJECT TO FINAL DESIGN, PERMIT REQUIREMENTS, AND AVAILABLE FUNDING

Grand Trunk Bay View Wetlands -
Low Water Depth

LEGEND

- Open Water/Aquatic
- Emergent
- Wet Prairie
- Mesic Prairie
- Copse of Trees
- Upland Woodland/Savanna
- Vegetated Dune
- Stormwater Treatment
- Swale
- Wetland Boundary
- Snake Hibernaculum
- Ecopassage Under Road
- Landscape Feature to Direct Wildlife to Ecopassage
- Rock Cluster
- Woody Debris

Hydrology

Design Low = 575.5

LWD = 577.5

Average WD = 578.5 (Note: The average in March is 578.4. The average in April is 578.7. The overall average is 578.9. So 578.5 is used as the average depth for purposes of design).

HWD = 582.5

Seiche adds an additional 2' to whatever the water level is. This happens about 10x per year.

90% of the water level data is between 576.9 and 580.2.

Plant Communities

Target depths for proposed plant communities:

Scrub Shrub:	-0.3' to 0.3'
Wet Prairie:	0' to 0.5'
Emergent:	-2' to 0'
Aquatic:	-4' to 2'
Open Water:	? to -4'

Pike

Pike will spawn between -6' to about -0.3'. Ideal spawning is -2' to -0.5'.

THE SIGMA GROUP
Single Source. Sound Solutions.

Applied Ecological Services, Inc.

SCALE: 1"= 80'
0' 40' 80' 160'

NORTH

PRELIMINARY - FOR DISCUSSION PURPOSES ONLY. ALL WORK IS SUBJECT TO FINAL DESIGN, PERMIT REQUIREMENTS, AND AVAILABLE FUNDING

Grand Trunk Bay View Wetlands - Average Water Depth

LEGEND

- Open Water/Aquatic
- Emergent
- Wet Prairie
- Mesic Prairie
- Copse of Trees
- Upland Woodland/Savanna
- Vegetated Dune
- Stormwater Treatment
- Swale
- Wetland Boundary
- Snake Hibernaculum
- Ecopassage Under Road
- Landscape Feature to Direct Wildlife to Ecopassage
- Rock Cluster
- Woody Debris

Hydrology

Design Low = 575.5

LWD = 577.5

Average WD = 578.5 (Note: The average in March is 578.4. The average in April is 578.7. The overall average is 578.9. So 578.5 is used as the average depth for purposes of design).

HWD = 582.5

Seiche adds an additional 2' to whatever the water level is. This happens about 10x per year.

90% of the water level data is between 576.9 and 580.2.

Plant Communities

Target depths for proposed plant communities:

Scrub Shrub:	-0.3' to 0.3'
Wet Prairie:	0' to 0.5'
Emergent:	-2' to 0'
Aquatic:	-4' to 2'
Open Water:	? to -4'

Pike

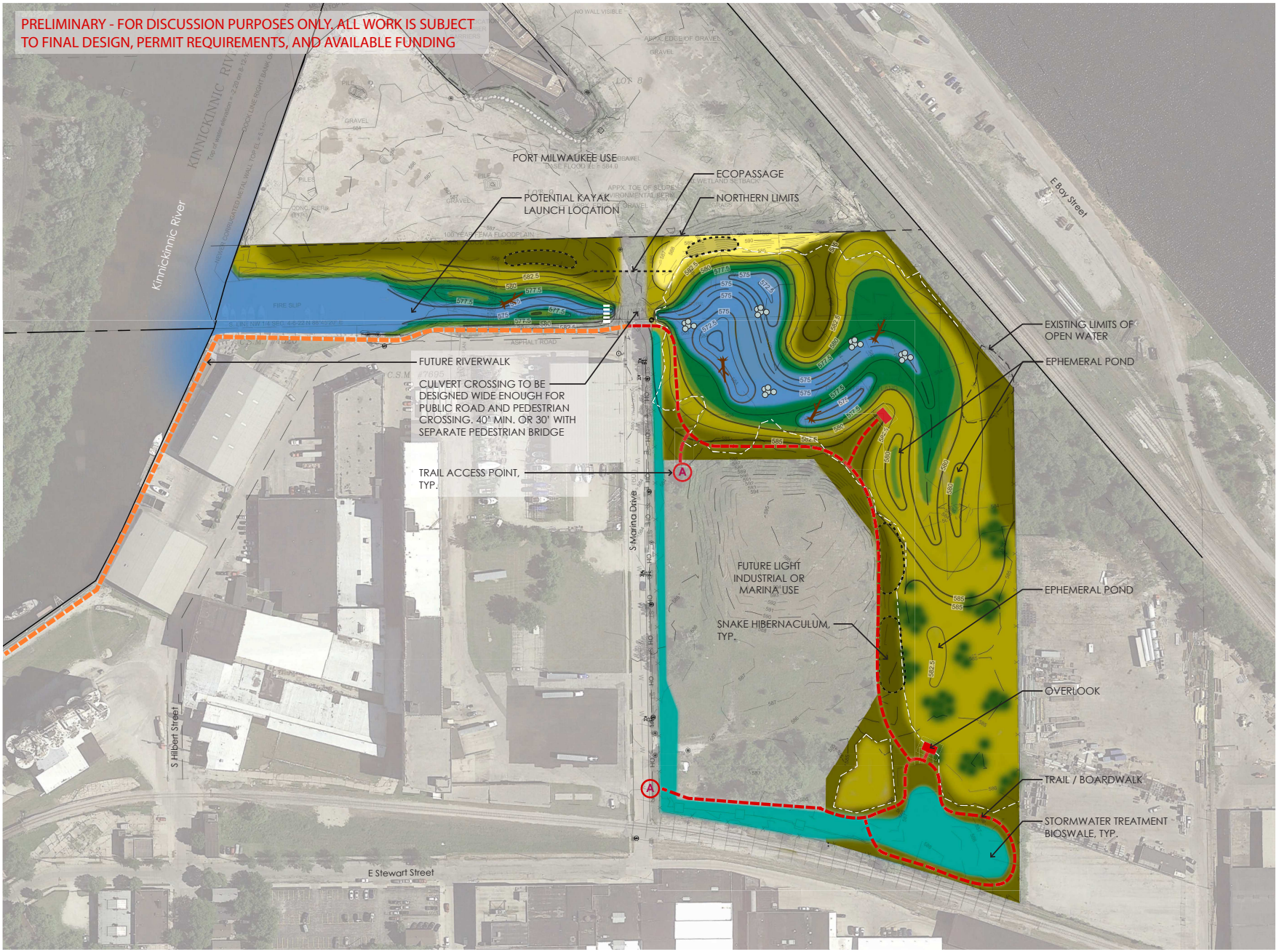
Pike will spawn between -6' to about -0.3'. Ideal spawning is -2' to -0.5'.

THE SIGMA GROUP
Sinale Source. Sound Solutions.

Applied Ecological Services, Inc.

SCALE: 1"= 80'
0 40' 80' 160'

NORTH



Grand Trunk Bay View Wetlands - Average Water Depth

Conceptual Public Access and Possible Ecological Improvements

LEGEND

- Open Water/Aquatic
- Emergent
- Wet Prairie
- Mesic Prairie
- Copse of Trees
- Upland Woodland/Savanna
- Vegetated Dune
- Stormwater Treatment
- Swale
- Wetland Boundary
- Snake Hibernaculum
- Ecopassage Under Road
- Landscape Feature to Direct Wildlife to Ecopassage
- Possible Public Access Point
- Conceptual Trail / Boardwalk
- Viewing Platform
- Possible Future Boardwalk
- Potential Carp Exclusion
- Rock Cluster
- Woody Debris

Hydrology

Design Low = 575.5

LWD = 577.5

Average WD = 578.5 (Note: The average in March is 578.4. The average in April is 578.7. The overall average is 578.9. So 578.5 is used as the average depth for purposes of design).

HWD = 582.5

Seiche adds an additional 2' to whatever the water level is. This happens about 10x per year.

90% of the water level data is between 576.9 and 580.2.

Plant Communities

Target depths for proposed plant communities:

Scrub Shrub:	-0.3' to 0.3'
Wet Prairie:	0' to 0.5'
Emergent:	-2' to 0'
Aquatic:	-4' to 2'
Open Water:	? to -4'

Pike

Pike will spawn between -6' to about -0.3'. Ideal spawning is -2' to -0.5'.

THE SIGMA GROUP
Single Source. Sound Solutions.

Applied Ecological Services, Inc.

SCALE: 1"= 80'

0' 40' 80' 160'

NORTH

PRELIMINARY - FOR DISCUSSION PURPOSES ONLY. ALL WORK IS SUBJECT TO FINAL DESIGN, PERMIT REQUIREMENTS, AND AVAILABLE FUNDING

Grand Trunk Bay View Wetlands -

Existing Conditions

THE SIGMA GROUP
Single Source. Sound Solutions.

Applied Ecological Services, Inc.

SCALE: 1"= 80'
0' 40' 80' 160'

NORTH

What do you think?

We would like to know what you think about the Grand Trunk Wetland Restoration project. Please take a moment to provide input to meeting staff (look for someone with a nametag) or fill out a comment card. Below are a few questions to help get your ideas forming, but we welcome and encourage any thoughts or questions you may have. You can also email questions and comments to harbordistrictplan@milwaukee.gov.

How are you likely to get to the Grand Trunk Wetland?


Walk


Bike


Paddle


Bus


Car

What route(s) would you take to get to the Grand Trunk Wetland?

What activities would you like to do at the Grand Trunk Wetland?


Bird Watching


Photography


Sit, Enjoy, and Relax


Participate in Educational Classes or Programs


Participate in Passive Education such as Signage and Displays

?

Other

What would make this project a success?

Project Partners and Funders

City of Milwaukee

Harbor District Milwaukee

Wisconsin Dept. of Natural Resources

The Sigma Group — Single Source. Sound Solutions.

Redevelopment Authority of the City of Milwaukee

Port Milwaukee — Connecting to the World

University of Wisconsin UWMilwaukee School of Freshwater Sciences

Applied Ecological Services

benesch

LA Dallman

AECOM

Great Lakes Restoration

Fund for Lake Michigan — Clearly making a deep impact.

Stormwater Solutions Engineering LLC

Great Lakes Ecological Services, LLC